

REMARKS/ARGUMENTS

Applicants request reconsideration of the outstanding rejection. Claim 4 was amended to replace "tube portion" with --tubular portion-- to eliminate the §112 objection. Further, claim 1, and basically all of the pending claims, have been amended to insert the limitation that the coil spring is expanded at least 1% and that this causes the spring to embed itself into the exterior surface of the tube. Applicants would maintain that these amended claims are not anticipated by the prior art, and that the invention as a whole is unobvious in light of the cited references.

Applicants' invention is basically a method of attaching a coupling to the end of a plastic tube. A spring is placed over the end of the plastic tube. The spring itself has an interior diameter about equal to the exterior diameter of the plastic tube. This structure is held in position as a coupling is inserted into the tube causing the tube end to expand and actually causing the spring to expand. It also causes the spring to embed itself within the exterior surface of the tube. This forms an extremely strong connection and actually uses the spring to hold the coupling together. In the past, springs have been positioned at the ends of tubes to protect the tube and actually prevents the tube from collapsing at the end of the tube. But, with applicants' invention, the spring is performing this function and at the same time is acting to hold the coupling together. By appropriate sizing of the coupling, tube and spring, one ensures that the spring expands at least 1%, and at the same time embeds itself into the end of the tube.

This is not taught by the prior art Reum reference. The Reum reference discloses, in Figure 1, a coupling with a spring. As discussed at column three, last full

paragraph, the spring is preferably a rigid polyvinyl chloride which can expand radially and is inserted into the collar to be frictionally retained. Alternately, it can be solvent welded in position. Thus, the spring does not act to secure the tube to the coupling. Nor should the spring embed itself within the exterior of the tube. The goal is simply frictioned engagement.

There simply is no disclosure of the spring in Reum embedding itself into the surface of the tube which, in effect, would then hold the coupling to the tube. This should be considered in combination with the requirement in the pending claims of expansion of the spring at least 1%. Minimal expansion for frictional engagement between the spring and the tube simply would not be effective to hold the tube to the coupling. Applicant has further added claim 11 to indicate that the spring is a metal spring, and claim 12 indicates that the tube is nylon, which is generally stronger than a plasticized polyvinyl chloride. A plastic spring generally should not embed itself into a nylon tube. Again, modification of Reum to create a product wherein the spring embeds itself into a nylon tube is simply not suggested anywhere in the reference. This would require modification of the spring disclosed in Reum to accomplish a totally different function.

The secondary Wiebe reference does not disclose these features. In the Wiebe reference, the tube is actually prevented from expanding by an exterior rigid collar. Wiebe discloses a threaded fitting that clamps everything together. This does not suggest applicants' invention. The Wiebe reference actually teaches away from the present invention because the coupling prevents the spring from expanding. Further, the coupling requires an outer sleeve which compresses the entire structure together. It is not the

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compression of the spring that is actually holding things together, it is the compression of the outer sleeve trapping the spring between the hose and the sleeve that is holding things together. Thus, there is no suggestion to modify Reum in light of Wiebe to arrive at the claimed invention. For this reason, it is applicants' position that the claimed invention is new and unobvious in light of the cited references.

In light of the above, applicants request reconsideration of the outstanding Office Action, and allowance of the pending claims.

Respectfully submitted,

WOOD, HERRON & EVANS, L.L.P.

By 

Gregory J. Lunn, Reg. No. 29,945

2700 Carew Tower
441 Vine Street
Cincinnati, OH 45202
(513) 241-2324 - Telephone
(513) 421-7269 - Facsimile